

FORM PTO-1449

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEINFORMATION DISCLOSURE
STATEMENT BY APPLICANT

(Use several sheets if necessary)

ATTY. DOCKET NO.
I-2-0173.5USSERIAL NO.
10/080,073APPLICANT
De et al.FILING DATE
2/21/2002GROUP
Not Yet Known

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

RW	AA	Ramjee Prasad, Werner Mohr and Walter Konhauser editors, <i>Third Generation Mobile Communication Systems</i> , Artech House, Boston, 2000.
	AB	Anja Klein, Ghassan Kawas Kaleh and Paul Walter Baier, "Zero Forcing and Minimum Mean-Square Error Equalization for Multiuser Detection in Code-Division Multiple-Access Channels", <i>IEEE Trans. on Vehicular Technology</i> , Vol.45, No. 2, pp. 276-287, May 1996.
	AC	Naja Klein, "Data Detection Algorithms Specially Designed for the Downlink of CDMA Mobile Radio Systems", <i>IEEE 47th Vehicular Technology Conference</i> , pp. 203-207, May 1997.
	AD	H.R. Karimi and N.W. Anderson, "A Novel and Efficient Solution to Block-Based Joint-Detection using Approximate Cholesky Factorization", <i>Personal, Indoor and Mobile Communications PIMRC' 98</i> , Conference Proceedings, Vol. 3, pp. 1340-1345, Sept. 1998, Boston, MA.
	AE	ETSI STC SMG2 Layer 1 Expert Group, "Low Cost MMSE-BLE-SD Algorithm for UTRA TDD Mode Downline", Tdoc SMG2 UMTS L1, Helsinki, Finland, Sept. 1998.
	AF	3G TS 25.102 V3.4.0, 2000-10, "UTRA (TDD) Radio Transmission and Reception", 3rd Generation Partnership Project, Technical Specification Group RAN WG4, Annex B., pp. 37.

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Sheet 1 of 1

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2/21/2002

**GROUP
2681**

**COPY OF PAPERS
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U.S. PATENT DOCUMENTS

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FOREIGN PATENT DOCUMENTS

[illegible]

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

RW ↓	AG	Benvenuto N. et al. "Joint Detection With Low Computational Complexity For Hybrid TD-CDMA Systems" VTC 1999-Fall. IEEE VTS 50th. Vehicular Technology Conference. Gateway to the 21st Century Communications Village. Amsterdam, Sept. 19-22, 1999, IEEE Vehicular Technology Conference, NY
	AH	Vandaele P. et al. "Recursive Total Least Squares Algorithm for Single-User Blind Channel Equalisation: IEE Proceedings: Vision, Image and Signal Processing, Institution of Lectrical Engineers, FB, Vol 147, No. 3, 23 June 2000

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	FILING DATE 2/21/2002	GROUP 2681

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EXAMINE R INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
					YES	NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

RW	AG	Weidong Yang et al., "Fast Joint Detection with Cyclic Reduction Exploiting Displacement Structures", 2000 IEEE International Conference on Acoustics, Speech, and Signal Processing, Istanbul, Turkey, 5-9 June. Proceedings (Cat. No. 00CH37100),
	AH	Proakis John G., "Digital Signal Processing, Macmillan Publishing Company, New York, NY, 1992, pg. 835, para. 11.3.1, page 890, para. 12.3.2
	AI	Vollmer et al., "Joint-Detection Using Fast Fourier Transforms in TD-CDMA based Mobile Radio Systems", International Annual Conference of ICT, 1999, pages 1-7, page 1, para. I, page 2, para. II, page 3, para III, page 4, para IV.
	AJ	Pigeonnat Y., "Alternative Solutions for Joint Detection in TD/CDMA Multiple Access Scheme for UMTS", IEEE Signal Processing Workshop on Signal Processing Advances in Wireless Communications, May 9, 1999, pages 329-332, page 329, para. 2.

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				APPLICANT De et al.			
				FILING DATE February 21, 2002		GROUP 2667	
U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
RW	*	5,377,225	12/1994	Davis			
↓	*	5,337,226	12/1994	Davis			
↓	*	5,648,983	07/1997	Kostic et al.			
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FOREIGN PATENT DOCUMENTS							
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							YES NO
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↓		Anja Klein, Ghassan Kaws Kaleh and Paul Walter Baier, "Zero Forcing and Minimum Mean-Square Error Equalization for Multiuser Detection in Code-Division Multiple-Access Channels", <i>IEEE Trans. on Vehicular Technology</i> , Vol.45, No. 2, pp. 276-287, May 1996.					
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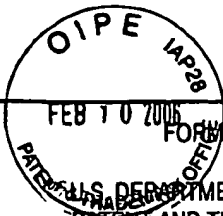
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RW		H.R. Karimi and N.W. Anderson, "A Novel and Efficient Solution to Block-Based Joint-Detection using Approximate Cholesky Factorization", <i>Personal, Indoor and Mobile Communications PIMRC' 98</i> , Conference Proceedings, Vol. 3, pp. 1340-1345, Sept. 1998, Boston, MA	
		ETSI STC SMG2 Layer 1 Expert Group, "Low Cost MMSE-BLE-SD Algorithm for UTRA TDD Mode Downline", Tdoc SMG2 UMTS L1, Helsinki, Finland, Sept. 1998.	
		3G TS 25.102 V3.4.0, 2000-10, "UTRA (TDD) Radio Transmission and Reception", 3rd Generation Partnership Project, Technical Specification Group RAN WG4, Annex B., pp. 37.	
		Lang Tong; Guanghan xu; Kailath T: "Blind identification and equalization based on second -order statistics: a time domain approach", IEEE Trans. Inf. Theory (USA), IEEE Transactions on Information Theory, March 1994, USA, ISSN 0018-9448, VOL-40, NR 2, pages 340-349	
		Benvenuto N. et al. "Joint Detection With Low Computational Complexity For Hybrid TD-CDMA Systems" VTC 1999-Fall. IEEE VTS 50th. Vehicular Technology Conference. Gateway to the 21st Century Communications Village. Amsterdam, Sept. 19-22, 1999, IEEE Vehicular Technology Conference, NY	
		Vandaele P. et al. "Recursive Total Least Squares Algorithm for Single-User Blind Channel Equalisation: IEE Proceedings: Vision, Image and Signal Processing, Institution of Electrical Engineers, FB, Vol 147, No. 3, 23 June 2000	
		Yang et al., "Fast Joint Detection with Cyclic Reduction Exploiting Displacement Structures", 2000 IEEE International Conference on Acoustics, Speech and Signal Processing, Istanbul, Turkey, June 2000	
		Proakis et al., "Digital Signal Processing", Macmillan Publishing Company, New York, NY, 1992, p. 835, para. 11.3.1, p. 890, para. 12.3.2	
		Vollmer et al., "Joint-Detection Using Fast Fourier Transforms in TD-CDMA Based Mobile Radio Systems", International Annual Conference of ICT, 1999, pp. 1-7, p. 1, para. 1, p. 2, para. II, p. 3, para. III, p. 4, para. IV.	
		Pigeonnat, "Alternative Solutions for Joint Detection in TD/CDMA Multiple Access Scheme for UMTS", IEEE Signal Processing Workshop on Signal Processing Advances in Wireless Communications, May 1999, pp. 329-332, p. 329, para. 2.	

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U.S. PATENT DOCUMENTS

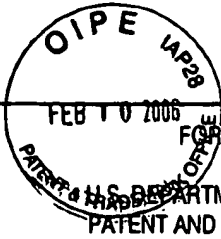
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RW	*	5,157,688	10/1992	Dell-Imagine			
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		5,377,225	12/1994	Davis			
	*	5,477,225	12/1995	Young et al.			
		5,648,983	07/1997	Kostic et al.			
	*	6,064,689	05/2000	Vollmer et al.			
	*	2002/0126619	09/2002	De et al.			
	*	2002/0126646	09/2002	De et al.			
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	*	2002/0154619	10/2002	De et al.			
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✓	*	2002/0159428	10/2002	De et al.			

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		Lang Tong; Guanghan xu; Kailath T: "Blind identification and equalization based on second-order statistics: a time domain approach", IEEE Trans. Inf. Theory (USA), IEEE Transactions on Information Theory, March 1994, USA, ISSN 0018-9448, VOL-40, NR 2, pages 340-349	
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